

FOR NATIONAL PHASE SUBMISSION

CLAIM AMENDMENTS

WHAT IS CLAIMED IS:

1. (Currently Amended) A valve body ~~with comprising~~ a cartridge ~~(21)~~ with a recess ~~(211)~~, that forms an injection nozzle ~~(213)~~ on one end and ~~with~~ a needle ~~(22)~~, that is arranged in the recess ~~(211)~~ and closes the injection nozzle ~~(213)~~, if it rests with its seat area ~~(224)~~ on a needle seat ~~(215)~~ of the cartridge ~~(21)~~, wherein an area ~~(216)~~ of the cartridge ~~(21)~~ adjacent to the needle seat ~~(215)~~ has a cylindrically-shaped outer contour and the needle ~~(22)~~ has a cylindrically-shaped area ~~(223)~~ adjacent to the seat area ~~(224)~~, and wherein the area ~~(216)~~ of the cartridge ~~(21)~~ adjacent to the needle seat ~~(215)~~ and the cylindrically-shaped area ~~(223)~~ have the same diameter.
2. (Currently Amended) A valve body ~~in accordance with according to~~ claim 1, ~~with wherein~~ the needle seat ~~(215)~~ and the seat area ~~(224)~~ of the needle ~~(22)~~ ~~being are~~ conically shaped.
3. (Currently Amended) A valve body ~~according to claim 1, wherein in accordance with one of the preceding claims, where~~ the cartridge ~~(21)~~ has an area adjacent to the area ~~(216)~~ adjacent to the needle seat ~~(224)~~ wherein the outer diameter of the cartridge ~~(21)~~ is increasing in the direction away from the injection nozzle ~~(213)~~.
4. (Currently Amended) A fluid injector with a housing ~~(1)~~, an actuator unit ~~(3)~~ and a valve body ~~(2)~~ ~~in accordance with one of the preceding claims according to Claim 1.~~

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5. (Currently Amended) A ~~M~~ethod for manufacturing a valve body with a cartridge-(21) with a recess-(211), that forms on one end an injection nozzle-(213), and with a needle-(22), that is arranged in the recess-(221) and closes the injection nozzle-(213), if it rests with its seat area-(224) on a needle seat-(215) of the cartridge-(21), wherein the area-(216) of the cartridge-(21) adjacent to the needle seat-(215) has a cylindrically-shaped outer contour and the needle-(22) has cylindrically-shaped area-(223) adjacent to the seat area-(224) with the following steps:

- inserting the needle-(22) in the recess-(221) and bringing it to rest with its seat area-(224) on the needle seat-(215),
- grinding the cylindrically-shaped outer contour of the cartridge-(21) and the cylindrically-shaped area-(223) of the needle-(22) together.

6. (Currently Amended) A ~~M~~ethod for manufacturing a valve body ~~in accordance with according to~~ claim 5, wherein the grinding includes a honing process.

7. (Currently Amended) A ~~M~~ethod for manufacturing a valve body ~~according to claim 5, wherein in accordance with one of claims 5 or 6, where~~ the grinding includes a lapping process.

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8. (NEW)A valve body comprising:

a injection nozzle comprising a recess, and

a needle arranged within the recess and being operable to close the injection nozzle when resting with its seat area on a needle seat of the injection nozzle, wherein

an area of the injection nozzle adjacent to the needle seat has a cylindrically-shaped outer contour and the needle has a cylindrically-shaped area adjacent to the seat area, and wherein the area of the injection nozzle adjacent to the needle seat and the cylindrically-shaped area have the same diameter.

9. (NEW)A valve body according to claim 8, wherein the needle seat and the seat area of the needle are conically shaped.

10. (NEW)A valve body according to claim 8, wherein the injection nozzle comprises an area adjacent to the area adjacent to the needle seat wherein the outer diameter of the injection nozzle is increasing in the direction away from the injection nozzle.

11. (NEW)A fluid injector with a housing, an actuator unit and a valve body according to Claim 8.